Please add the following new claims:

--31. The protein of claim 1 wherein the protein is derived from the +1/-2 overlapping reading frame.

32. The protein of claim 31 wherein the protein has a length of at least about 126 amino acids.

33. The protein of claim 1 wherein the protein is derived from the -1/+2 overlapping reading frame.

34. The protein of claim 33 wherein the protein has a length of about 10 to at least about 50 amino acids.

35. A vaccine for immunizing a mammal against hepatitis C comprising at least one protein of claim 1 in a pharmacologically acceptable carrier.

36. A method of preventing hepatitis C, the method comprising administering the vaccine of claim 35 to a mammal in an amount effective to stimulate the production of a protective antibody.

37. A DNA vaccine for immunizing a mammal against hepatitis C comprising a DNA sequence that encodes for at least one protein of claim 1 in a pharmacologically acceptable carrier.

38. A method of preventing hepatitis C, the method comprising administering the vaccine of claim 37 to a mammal in an amount effective to stimulate the production of a protective antibody.

39. A composition comprising the protein of claim 1 and an excipient, diluent or carrier.

40. A method of preventing hepatitis C, the method comprising administering the composition of claim 39 to a mammal in an amount effective to stimulate the production of a protective antibody.

41. Antibodies directed against a hepatitis C virus (HCV) core protein which are elicited by immunizing an animal using a partially purified protein of claim 1.

42. The antibodies of claim 41 wherein the antibodies are monoclonal.

43. The antibodies of claim 41 wherein the antibodies are polyclonal.

44. A method for analyzing HCV antigen in a sample comprising contacting said antibodies of claim 41 with said sample under conditions suitable for said antibodies to form a complex with a hepatitis C virus (HCV) antigen protein, and detecting said complex and thereby determining whether HCV antigen is in said sample.

45. A method for detecting hepatitis C virus (HCV) antibodies in a sample, comprising contacting the protein of claim 1 with said sample under conditions which allow binding of said protein with antibodies directed against an HCV antigen in said sample to form a antigen-antibody complex, and then detecting said antigen-antibody complex.

46. The method of claim 45 wherein the method is carried out by solid phase-immunoassay.

47. The method of claim 45 characterized by using an enzyme or isotope substance as a label.

48. An enzyme-linked immunosorbent assay (ELISA) for detecting hepatitis C virus (HCV) antibodies in samples, which comprises: a) coating the protein of claim 1 onto a solid phase, b) contacting a sample suspected of containing HCV antibodies with said polypeptide coated onto the solid phase under conditions which allow the formation of an antigen-antibody complex, c) adding an anti-human antibody conjugated with an enzyme label to be captured by said antigen-antibody complex bound to the solid phase, and d) detecting the captured label and determining whether the sample has HCV antibodies. --